

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method of generation and homodyne detection comprising selecting a length of electric path, wherein an equal value is selected of both electrical paths ~~between shunt arm in waveguide T-connection and generated diode in one collinear arm, and in the second collinear arm between the same shunt arm and detection diode~~ providing electrical paths each having an equal value, the electrical paths between a shunt arm in a waveguide T-connection and a generation diode in one collinear arm and a detection diode in another collinear arm such that signals from a single microwave antenna that both radiates to and receives signals reflected from an inspected object are used for inspection.

2. (Currently Amended) A generation and homodyne detection system containing generation Gunn diode seating connected with one collinear arm, and detection diode seating connected with the second collinear arm significant by waveguide T-connection between generation diode seating and detection diode seating and a single microwave antenna for radiating to and receiving signals from an inspected object, the waveguide T-connection connected to the microwave antenna.

3. (New) The method of claim 1 wherein signals from the single microwave antenna are received by the waveguide T-connection.